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(143)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of

KETTUNEN

Atty. Ref.: **10-1304**

Serial No. **09/533,904**

Group: **1731**

Filed: **March 21, 2000**

Examiner: **Nguyen**

For: **COOKING CELLULOSE MATERIAL USING HIGH
ALKALI CONCENTRATIONS AND/OR HIGH PH NEAR
THE END OF THE COOK**

April 29, 2002

Assistant Commissioner for Patents
Washington, DC 20231

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APPEAL BRIEF

Sir:

This Appeal is from the Examiner's final rejection of claims 47-53.¹ As will become evident from the following discussion, the Examiner's rejection of record is in error and, as such, reversal of the same is solicited.

I. Real Party In Interest

The real party in interest is the owner of the subject application, namely Andritz Inc. the successor in interest to Andritz-Ahlstrom Inc., which in turn was the successor in interest of Ahlstrom Machinery Inc.²

II. Related Appeals and Interferences

There are no appeals and/or interferences related to the subject application.

¹ The claims on appeal appear in the Appendix accompanying this Brief.

² Copies of the merger/name change documents are being submitted for the Examiner's review and consideration even date herewith so as to respond to the objection raised under 37 CFR §1.172(a).

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III. Status of Claims

A. The following claims are presently pending in this application: Claims 1-21 and 47-53.

B. The following claims have been allowed: 1-21.

C. The following claims have been "finally" rejected and are the subject of this appeal: 47-53.

IV. Status of Amendments

No further amendments have been submitted subsequent to the Examiner's "final" rejection of January 29, 2002. However, chain of title documents have been submitted even date herewith for the Examiner's consideration and review so as to address the issue raised under 37 CFR §1.172(a).

V. Summary of the Invention

The invention which is the subject matter of this appeal involves a method for producing pulp. More specifically, according to the claimed method, a digester is provided to facilitate a cooking reaction which has at least one screen girdle section disposed therein and has a first cooking zone and a second cooking zone. The fiber material is transported to the impregnation zone so as to be heated and impregnated therein with a first part of the cooking liquor which is supplied to the impregnation zone and the first cooking zone. Subsequently, the heated and impregnated fiber material is transferred to the first cooking zone of the digester and cooked to achieve a first effective alkali (EA) concentration therein. The fiber material and cooking liquor is then passed through the first cooking zone and a second portion of the total amount of cooking liquor is supplied to the second cooking zone to obtain a second effective alkali concentration therein. More specifically, second effective alkali concentration achieved in the second cooking zone is obtained so as to be between about 15 grams/liter and about 50 grams/liter greater than the first effective alkali concentration obtained in the

first cooking zone. (See Figure 2 and the discussion thereof, as well as column 3, lines 1-3 and column 4, lines 8-10.)

VI. Rejections of Record

Claims 47-53 stand rejected under 35 USC §251 as allegedly being an improper recapture of the claimed subject matter canceled during prosecution of the applicant's original U.S. Patent No. 5,779,856.

VII. Issue

The following issue is presented for purpose of this Appeal:

Has the Examiner misconstrued the amendments made during prosecution of the original U.S. Patent No. 5,779,856 so as to erroneously assert that claims 47-53 are barred by the recapture rule?

VIII. Groupings of Claims

Claims 47-53 may be grouped and thus considered to stand or fall together.

IX. Arguments

The Examiner asserts that claim 16 of the original U.S. Patent No. 5,779,856 (hereinafter "the '856 patent") was amended during prosecution so as to overcome prior art in the form of U.S. 5,522,958 to Li so as to include the limitation in step (e) that the spent cooking liquor possessed an effective alkali concentration of greater than about "20 g/l". Furthermore, the Examiner asserts that step (e) of claim 16 was amended as to emphasize that, "...during at least the last fifteen minutes of step (e), the effective alkali concentration expressed as NaOH or equivalent is between 20-40 g/l, so as to produce chemical pulp having enhanced intrinsic fiber strength compared to if the effective alkali concentration was below 15 g/l during the last fifteen minutes of step (e)." The Examiner then concludes that, since such limitations are not present in independent claim 47 pending herein, then claims 47-53 are properly rejected under 35 USC §251 as

being barred by the recapture rule, citing *Ball Corp. v. United States*, 221 USPQ 289, 295 (Fed. Cir. 1984).

Applicant submits that the amendments made to claim 16 in the original '856 patent have factually been misconstrued which thereby has led to the erroneous rejection of claims 47-53 under 35 USC §251.

In this regard, applicant notes that the limitation of step (e) in claim 16 of the original '856 patent relates to the effective alkali (EA) concentration of the **spent** cooking liquor from the **second cook zone**. Applicant suggests that the EA concentrations referenced by the Examiner to support this rejection are not pertinent at all to the subject matter claimed by new claim 47. Specifically, claim 47 and claims 48-53 dependent thereon do not address the EA concentration of any **spent** cooking liquors. Instead, independent claim 47 recites the difference in the EA concentration between the **cooking** liquors **at the beginning of the first and second cooking zones**. As such, the recitation of the difference in such EA concentration is not recapturing at all any subject matter that was cancelled from the original '856 patent.

The Examiner has replied in his Official Action dated January 29, 2002 that such an argument "...is not persuasive since the subject matter of the original '856 patent is pertinent to the subject matter claimed by the new claim 47 and the comparison is proper." The Examiner therefore completely fails to comprehend that the "subject matter" of claim 16 in the original '856 patent is **not** the same as the "subject matter" of the present reissue application.

Here, it is quite clear that the alleged improper broadening asserted by the Examiner relates to an aspect of the claim that was **never narrowed** during prosecution in order to overcome the prior art (i.e., the Examiner is in fact comparing "apples" to "oranges"). Instead, the narrowing of original patent claim 16 was with respect to the EA of the **spent** liquor – i.e., the EA of the liquor **after** cooking. In the present claim 47, the EA of the second stage liquor is stated as the difference between its EA and the EA of the first stage cooking liquor.

Also, even if it is assumed for the moment that the second stage cooking liquor of reissue claim 47 is considered to be a "spent" cooking liquor (as the Examiner is apparently doing), then it is quite clear that the difference between second and first stage EA concentrations must mean that the second stage cooking liquor of claim 47 at a **minimum** is 25 g/l (i.e., a difference of 15 g/l greater than the EA of the first cooking liquor which is minimally 10 g/l = 25 g/l). Such a minimum EA concentration is clearly **narrower** than (i.e., because it is greater than) the minimum limitation of 20 g/l expressed in step (e) of original patent claim 16.

Applicant submits that the Federal Circuit's decision in *In re Clement*, 45 USPQ2d 1161 (Fed Cir. 1997) is controlling under the present factual circumstances. In this regard, the Court in *In re Clement* limited its decision in *Ball Corp. v. United States* to the latter's facts. Here it is quite clear that the decision in *Clement* controls since the reissue claims at issue, while broader in some respects, are also narrower in other respects. For example, applicants note the claims at issue here are narrower with respect to the requirement that a step of impregnation of the fiber material must occur that that it is the digester which has first and second cooking zones having the stated EA concentrations. And, as noted above, the EA concentration as expressed in the present claim 47 is also actually narrower with respect to the minimum limitation of 20 g/l expressed in step (e) of original '856 patent claim 16.

Claim 47 is also broader in other respects that were not germane at all to the prior art rejection advanced during prosecution of the original '856 patent. For example, independent claim 47 pending herein does not require that the second cooking liquor provide "...at least 50% of the total fresh alkali to be consumed by the material in the production of chemical pulp" as required in step (d).

Therefore, applying the standards set forth in *Clement*, it is quite clear that the recapture rule does not bar claims 47-53. As a result, it should now be quite clear that both legally and factually no improper "recapture" is being attempted here.

X. Conclusions

The Examiner's rejection of claims 47-53 under 35 USC §251 is in error and must be reversed. Such favorable action is solicited.

Respectfully submitted,

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APPENDIX

Appealed Claims – USSN 09/533,904

47. (AMENDED) A method for producing pulp, comprising the steps of:
- providing a fiber material, a transport liquid and an impregnation zone;
 - providing a digester to facilitate a cooking reaction, the digester having at least one screen girdle section disposed therein, the digester having a first cooking zone and a second cooking zone;
 - providing a total amount of cooking liquor required for the cooking reaction;
 - transporting the fiber material and the transport fluid to the impregnation zone;
 - heating and impregnating the fiber material disposed in the impregnation zone;
 - transferring the heated and impregnated fiber material from the impregnation zone to the first cooking zone;
 - supplying a first portion of the total amount of the cooking liquor to the impregnation zone and the first cooking zone;
 - obtaining a first effective alkali concentration in the first cooking zone;
 - passing the fiber material and the cooking liquor through the first cooking zone; and
 - supplying a second portion of the total amount of the cooking liquor to the second cooking zone to obtain a second effective alkali concentration in the second cooking zone, the second alkali concentration being between about 15 grams/liter and

about 50 grams/liter greater than the first effective alkali concentration.

48. (New) The method according to claim 47 wherein the method is a continuous process.

49. The method according to claim 47 wherein the method further comprises the steps of withdrawing a spent liquor from the screen girdle section and transferring the spent liquor to the impregnation zone.

50. (New) The method according to claim 47 wherein the second alkali concentration is between about 20 grams/liter and about 50 grams/liter greater than the first effective alkali concentration.

51. (New) The method according to claim 47 wherein the second alkali concentration is between about 30 grams/liter and about 40 grams/liter greater than the first effective alkali concentration.

52. (New) The method according to claim 47 wherein the first temperature is between about 150° C. and about 160° C.

53. (New) The method according to claim 47 wherein the second temperature is between about 140° C. and about 150° C.